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GUIDELINES ON THE MAN-MADE HERITAGE COMPONENT OF ENVIRONMENTAL ASSESSMENTS

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Ontario

Ministry of
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September 1980

**GUIDELINES ON THE
MAN-MADE HERITAGE COMPONENT
OF ENVIRONMENTAL ASSESSMENTS**

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Prepared
by
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Toronto
Historical Planning and Research Branch
Ontario Ministry of Culture and Recreation
1980

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Historical Planning and Research Branch
Ontario Ministry of Culture and Recreation

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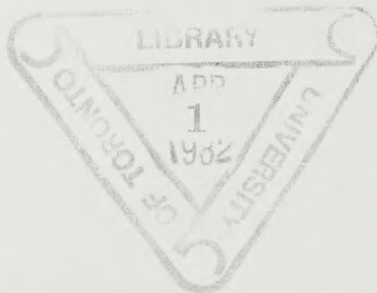
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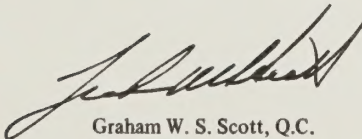
**Ministry of
Culture and
Recreation**

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We are pleased to release these guidelines on the man-made heritage component of environmental assessments. These special guidelines have been produced as a supplement to the General Guidelines for the Preparation of Environmental Assessments, published by the Ministry of the Environment in July 1978.

The cultural heritage guidelines translate into specific terms how an important aspect of environmental assessments should be undertaken. Their general aim is to maximize consideration for the conservation of heritage resources in the environmental planning process at minimum cost and with minimum disruption to the program objectives of proponents responsible for preparing environmental assessments.

It is our hope that these guidelines on the man-made heritage component of environmental assessments will be one important means of helping to identify opportunities for the conservation and wise use of Ontario's environment for the greater benefit of the province's people.


Graham W. S. Scott, Q.C.
Deputy Minister

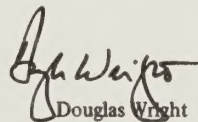

Douglas Wright
Deputy Minister

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PREFACE

These guidelines on the man-made heritage component of environmental assessments were prepared as a supplement to the *General Guidelines for the Preparation of Environmental Assessments, 1978*, Ministry of the Environment, and are intended for use in conjunction with direct discussions with the Ministry of Culture and Recreation. Although these guidelines deal exclusively with man-made heritage concerns, it is recognized that *The Environmental Assessment Act* does not give primacy to heritage concerns alone, or for that matter any other single component of an environmental assessment. Rather, it is the balancing of such concerns in arriving at a decision on the adequacy of the information in an environmental assessment and the approval of the undertaking that is the focus of *The Environmental Assessment Act*.

Where statements in these Guidelines interpret the legal framework of environmental assessment, they are purely advisory, and in the case of any conflict or doubt, the wording of *The Environmental Assessment Act, 1975*, and the Regulations made under its authority will prevail.

These Guidelines will be updated and revised on a regular basis as experience is gained with the administration of *The Environmental Assessment Act*. Suggestions for revisions and clarification are welcomed by both the Ministry of the Environment and the Ministry of Culture and Recreation, and should be directed to either Mr V.W. Rudik, Assistant Director, Environmental Approvals Branch, Ministry of the Environment, 135 St. Clair Avenue West, Toronto M4V 1P5 or Mr R.B. Apted, Director, Historical Planning and Research Branch, Ministry of Culture and Recreation, 7th Floor, 77 Bloor Street West, Toronto M7A 2R9.

SUMMARY

This summary is an abbreviated version of the main subjects of discussion in the Guidelines. Anyone wanting a fuller understanding of these subjects should refer to the main text.

Man-Made Heritage and *The Environmental Assessment Act*

The Minister of Culture and Recreation is concerned with the environmental planning process established by *The Environmental Assessment Act, 1975*, because of his responsibility under section 2 of *The Ontario Heritage Act, 1974* for “determining policies priorities and programs for the conservation, protection and preservation of the heritage of Ontario.” Heritage resources include property of historical, architectural, archaeological, aesthetic, and scenic interest;

Section 1(c)(iv) of *The Environmental Assessment Act, 1975* makes it necessary in order to comply with the definition of environment contained in the statute to identify and evaluate those elements of the environment that are the works of man or the effects of his activities and which may be regarded as part of the province’s heritage because of their influence on the social, economic and cultural life of Ontarians or the places where they live; and

Section 5(1) of *The Environmental Assessment Act, 1975* establishes two fundamental questions to be addressed with the submission of an environmental assessment - is the information in the environmental assessment adequate to render it acceptable; and should the undertaking be given approval to proceed? Sufficient information concerning the man-made heritage component of the environment and the potential effects on it from an undertaking is an important part of this decision-making process.

Man-Made Heritage and the Content of Environmental Assessments

Section 5(3) of *The Environmental Assessment Act, 1975* provides the basis upon which man-made heritage, as a component of environment, should be identified and evaluated. An environmental assessment should therefore include the following, presented in narrative and graphic form:

In the description of the **purpose and rationale** for the undertaking, an explanation of why proposed change to any already well-known man-made heritage in the environment may be the undertaking, or an alternative method of carrying out the undertaking, or an alternative to the undertaking;

In the description of the environment to be **affected** by the undertaking and alternatives, the way in which man-made heritage may determine the location and extent of the affected area;

In the description of the environment to be **affected** by the undertaking and alternatives, a description of any man-made heritage in cultural landscape, built environment, and archaeological resources, as well as the public’s expressed interest in such cultural properties;

In the description of **predictable effects** on the environment of the undertaking and alternatives, a description of expected beneficial and adverse effects on man-made heritage resources and on the interests of Ontarians in such resources;

In the description of **actions necessary to prevent, change, mitigate, or remedy** adverse effects on the environment from the undertaking and alternatives, a description of such actions considered necessary and appropriate for the conservation of man-made heritage resources;

In the evaluation of the **advantages and disadvantages** of the undertaking and alternatives to the environment, an explanation of how man-made heritage resources have been ranked among other factors in deciding upon the desirability of the proposed change in the environment, and why any trade-offs involving either the destruction, or retention, or improvement of cultural property were considered necessary or appropriate.

1. **MAN-MADE HERITAGE AND THE ENVIRONMENTAL ASSESSMENT ACT: an Introduction**

There are three fundamental questions that must be addressed by way of introduction. Why is the Ministry of Culture and Recreation concerned with man-made heritage in the environmental planning process established by *The Environmental Assessment Act, 1975*? How does the identification and evaluation of man-made heritage in an environmental assessment contribute to the achievement of the Act's purpose? And, how is man-made heritage to be understood as part of the interpretation of "environment" in the Act?

The Ministry of Culture and Recreation is concerned with man-made heritage in environmental assessment because of the Minister's responsibility under section 2 of *The Ontario Heritage Act, 1974*, for "determining policies, priorities and programs for the conservation, protection and preservation of the heritage of Ontario." In its capacity as an advisor on heritage conservation matters and as a reviewer of environmental assessments, the Ministry comments critically on the identification, evaluation, and proposed treatment of man-made heritage resources as part of the environment to ensure that concerns for these resources are considered fully in the environmental assessment planning process.

The concerns of the Ministry of Culture and Recreation for man-made heritage resources relate directly to the purpose of *The Environmental Assessment Act*, namely, "the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management in Ontario of the environment" (Part 1-2). The identification and evaluation of man-made heritage in an environmental assessment contributes to the achievement of this purpose in a number of ways:

It helps to ensure the preservation of valuable and non-renewable human artifacts as information for scholarly study and public education;

It assists society in choosing those material links with the past that it desires to retain as environmental amenities, and to maintain that sense of security so important to its psychological well-being; and

It contributes to the identification of opportunities for increasing economic benefits to Ontarians from such conservation minded actions as maintaining, restoring, rehabilitating, and recycling our property, and from conservation and tourism working together.

Some explanation of what is meant by the term man-made heritage would seem to be appropriate here. When speaking of man-made heritage we are concerned with the works of man and the effects of his activities in the environment rather than with moveable human artifacts or those environments that are natural and completely undisturbed by man. The separation implied between man and nature in the environment is one of convenience only. Landscape is not a static background that we inhabit, but the interaction of a society and the habitat it lives in, and if either man or habitat changes, then so invariably must the resulting landscape. There are, however, different techniques involved in the conservation of natural landscape and the structures with which man has punctuated the scene. In practice it may often be necessary to trespass some way beyond the boundary between the two. Accordingly, the works of man and the effects of his activities in the environment may be considered as heritage where they constitute the consultable record of past human activities, endeavours, or events, and where people in the whole or any part of Ontario have particular affection for these objects or activities as something that belongs to them in some way.

Having defined man-made heritage as part of the environmental inheritance of the province's people, it is logical to ask who these people are and what their particular interests in cultural property might be. We may distinguish interest groups on the basis of their particular stake or investment in cultural property, and according to distinctive community, ethnic, or social relationships among individual persons. A cultural investment is made by creating or using a landscape, physical feature, or structure that through time becomes important in the lifeways, beliefs, or institutions of the group involved. A cultural investment may be the focus of local, regional, provincial, national, or international concern.

Community, ethnic, and social groups express their interest in cultural investments in a variety of ways: an ancient burial ground has a sacred and symbolic meaning for a Native Peoples band whose ancestors may lie there; the distinctive style of a Greek Orthodox church is cherished by people of that religious denomination; a community of professional and amateur scholars may regard a place or building as a valuable object for the study of Ontario history, architecture, or archaeology; an amenity society may view lands or buildings of historic interest in the commun-

ity as opportunities for recreation and education; and a businessmen's association may regard the fine old commercial buildings of its town core and the historic routes into it as the basis for the town's attractiveness to resident shoppers and tourists, and therefore an important reason for the town centre's continued economic and social prosperity. There are, of course, a number of formal groups that express interests in cultural property, such as Heritage Canada, the Ontario Historical Society, the Ontario Archaeological Society, the Architectural Conservancy of Ontario, local historical societies, and heritage trusts and foundations. There are as well those official public bodies especially concerned with heritage such as the Local Architectural Conservation Advisory Committees appointed by municipal councils and the Ontario Heritage Foundation, which is an agency of the Ministry of Culture and Recreation.

The articulation of an interest in cultural property is, however, no simple matter. Personal recognition of man-made heritage in our surroundings obviously depends not only on what lies in the beholder's eye, but also on what lies in his head. Recognizing that some aspects of identifying and evaluating man-made heritage involve subjective judgements, we may nevertheless distinguish broadly between two basic ways of visually experiencing this heritage in the environment—as cultural landscape and as cultural feature. While we may not be able to perceive both simultaneously, they do exist together.

Cultural landscape is the use and physical appearance of the land as we see it now as a result of man's activities over time in modifying pristine landscapes for his own purposes. A cultural landscape is perceived as a collection of individual man-made features into a whole. Urban cultural landscapes are sometimes given special names such as townscape or streetscape that describe various scales of perception from the general scene to the particular view. Cultural landscapes in the countryside are viewed in or adjacent to natural, undisturbed landscapes, or waterscapes, and include such land-uses as agriculture, mining, forestry, recreation, and transportation. Like urban cultural landscapes, they too may be perceived at various scales: as a large area of homogeneous character; or as an intermediate sized area of homogeneous character or a collection of settings such as a group of farms; or as a discrete example of specific landscape character such as a single farm, or an individual village or hamlet.

A cultural feature is an individual part of a cultural landscape that may be focused upon as part of a broader scene, or viewed independently. The term refers to any man-made or modified object in or on the land or underwater such as buildings of various types, street furniture, engineering works, planting and landscaping, archaeological sites, or a collection of such objects seen as a group because of close physical or social relationships.

Section 3 of these Guidelines, which deals with the description of affected man-made heritage, will delineate those attributes that may distinguish cultural landscape and cultural features as heritage. In addition to this, some explanation will be offered on how to recognize man-made heritage concerns in general environmental information, as well as through documentary and fieldwork research specifically concerned with cultural landscapes and cultural features.

Let us turn now to the question of how man-made heritage is to be understood as part of the interpretation of "environment" in *The Environmental Assessment Act, 1975*. Section 1(c)(iv) of the Act specifically identifies as part of the "environment," "any building, structure, machine or other device or thing made by man." Moreover, the interpretation of "environment" also includes the combination and interrelationships of human artifacts with all other aspects of the physical environment as well as with the social, economic, and cultural conditions that influence the life of man or a community. It is therefore necessary to comply with the definition contained in the statute to identify and evaluate those elements of the environment that are the works of man or the effects of his activities and which may be regarded as part of the province's heritage because of their influence on the social, economic, and cultural life of Ontarians of the places where they live. Moreover, Section 5(1) of the Act establishes two fundamental questions to be addressed with the submission of an environmental assessment: is the information in the environmental assessment adequate to render it acceptable; and should the undertaking be given approval to proceed? Sufficient information concerning the man-made heritage component of the environment, and the potential beneficial or adverse effects on it from a proposed undertaking, is an important part of this decision making process.

2.

MAN-MADE HERITAGE AND THE CONTENT OF ENVIRONMENTAL ASSESSMENTS

The definition of the required content of an environmental assessment in section 5(3) of *The Environmental Assessment Act, 1975*, provides the basis upon which man-made heritage, as a component of environment, should be identified and evaluated. There are three areas of concern here for man-made heritage resources.

Firstly, in the description of the **purpose** and **rationale** for the undertaking required by section 5(3)(a) and (b) of the Act, an explanation should be made of why proposed change to any already well-known man-made heritage in the environment may be the undertaking, an alternative method of carrying out the undertaking, or an alternative to the undertaking.

Secondly, the descriptions required in section 5(3)(c) of the Act should contain descriptions of man-made heritage as part of the environment. The required descriptions are:

the environment that will be **affected** or that might reasonably be expected to be affected, directly or indirectly;

the **effects** that will be caused or that might reasonably be expected to be caused to the environment; and

the **actions** necessary or that may reasonably be expected to be necessary to prevent, change, mitigate, or remedy the effects upon or the effects that might reasonably be expected upon the environment by the undertaking, the alternative methods of carrying out the undertaking, and the alternatives to the undertaking.

Thirdly, in the evaluation of the **advantages** and **disadvantages** to the environment of the undertaking, the alternative methods of carrying out the undertaking, and the alternatives to the undertaking required by section 5(3)(d) of the Act, man-made heritage resources should be considered fully as part of the affected environment.

In the remaining parts of these Guidelines, a method is suggested for making the descriptions discussed above for man-made heritage resources, and for evaluating advantages and disadvantages of the undertaking and alternatives to those resources, as part of an overall assessment of the environment.

The regulations of *The Environmental Assessment Act, 1975* allow undertakings to be put forward on either a “Specific” (sometimes termed an individual) or on a “Class” basis. The fundamental difference between the two types of undertaking is defined on pages 15-16 of the Ministry of the Environment’s *General Guidelines for the Preparation of Environmental Assessments, 1978*. Different approaches are often required for each of these respective types of undertaking in the preparation of the man-made heritage component of environmental assessments. In each of the following sections of these Guidelines, the two approaches are distinguished wherever relevant.

3.

DESCRIPTION OF AFFECTED MAN-MADE HERITAGE

It is suggested that descriptions of the man-made heritage in the environment to be affected by an undertaking and alternatives be made according to the following process:

identify the area to be affected by the undertaking and alternatives;

determine the scale and sequence for the data gathering process;

gather the necessary information; and

determine a format for the documentation and presentation of information.

3.1

The Affected Area

In order to define accurately the limits of the area to be affected by a “Specific” (or individual) undertaking and alternatives, it is necessary to identify not only the construction boundaries of the proposed project but also the region that provides the broad environmental context for the development and land disturbance activities of the undertaking (See Figure 1). The identification of man-made heritage resources is an important part of defining the physical nature and sense of a region.

An example will help to illustrate these points. The construction of a new provincial highway introduces a new element to the landscape in the form of a right-of-way and alters substantially the physical environment immediately

in its path. Construction activities, however, will range over a much larger area than the right-of-way by the building of temporary access roads and service lines and the utilization of nearby sources of mineral aggregate and other natural building materials. Historic buildings, structures, and planting and landscaping, as well as archaeological sites, may be found in both the right-of-way and remote activity areas associated with the undertaking. Also, the new highway creates a new view from the road for motorists in addition to a new landscape feature in the countryside environment. The impact of the new road on the historic and scenic quality of the landscape, and therefore the extent of the affected area, depends on the observation point of the viewer. Finally, if the region through which the new provincial highway is constructed was previously only accessible by boat or air, some areas are more likely to experience pressures from new industrial development, and any resulting change to man-made heritage in the environment would be considered as an infrastructural effect of highway construction. The identification of infrastructural effects can of course be carried to impossible extremes, so discretion must be exercised in defining affected areas of this kind.

For a "Class" undertaking, a considerable number of unspecified sites and areas over the entire province and the man-made heritage therein may be affected. Some limits on the extent of the area to be affected by a class undertaking may be anticipated, however, from the general description of the characteristics of projects that are to be included in a particular class (for example, maximum and minimum size, specified standard designs, etc.). The "Class" environmental assessment should therefore define the anticipated geographic extent and general conditions of the area to be affected by a typical example of class activity.

3.2

Scale and Sequence of the Data Gathering Process

The description of man-made heritage in the environment to be affected by a "Specific" (or individual) undertaking and alternatives is dependent upon the nature and accessibility of the necessary information. It is the Ministry of Culture and Recreation's wish that environmental assessment carefully utilize currently available information supplemented by new data collected through original research where the necessary information is non-existent or known to be substantially unreliable. Since every undertaking requiring environmental assessment is essentially unique, specific terms of reference for the data gathering process can only be determined once the nature and scope of the undertaking are known. Each case is different.

Proponents of undertakings are encouraged to consult with the Historical Planning and Research Branch of the Ministry of Culture and Recreation to determine, in each case, what information on man-made heritage is available, its reliability, and how it may be supplemented by documentary and field research if necessary. Once this has been done, the proponent should define terms of reference for man-made heritage data-gathering guided by a knowledge of the availability and deficiency of information and commensurate with the proponent's resources for undertaking environmental assessment.

For a "Class" undertaking, the environmental assessment should discuss briefly the need to specify the scale and sequence of the data-gathering process concerning man-made heritage for whatever reports are required for each individual project within the class of activity.

3.3

Gathering the Necessary Information

Information necessary for the description of man-made heritage may be considered under the following categories:

Cultural Landscape;

Built Environment;

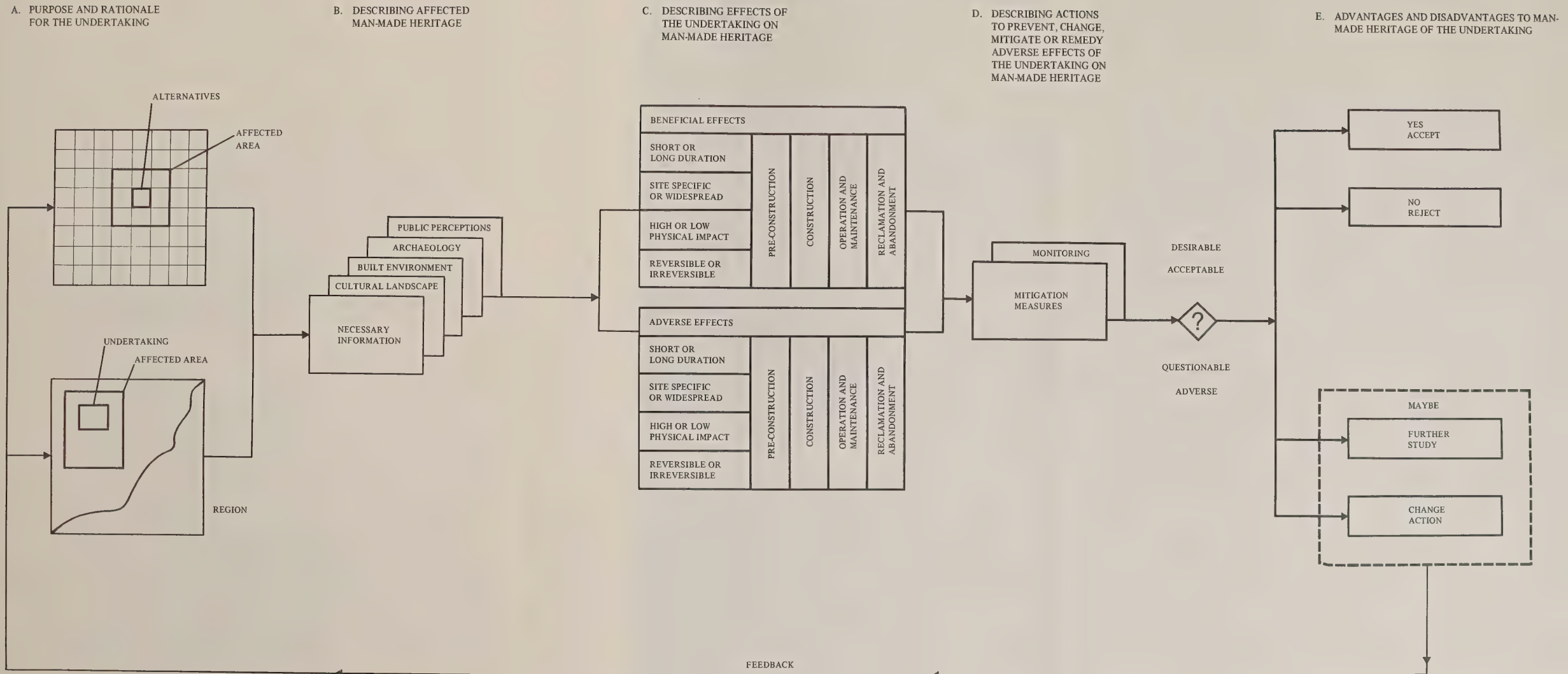
Archaeology; and

Public Perceptions.

These categories are neither definitive nor mutually exclusive. Defining categories of information, elements within these categories, and their respective significance, involves a measure of subjective judgement. All categories of

FIGURE 1.

A GENERAL PROCESS MODEL, FOR ASSESSING
MAN-MADE HERITAGE IN THE ENVIRONMENT



description, however, should indicate for **each** element described whether it is of local, regional, provincial, national, or international concern in the opinion of those expressing judgements in the information utilized for the preparation of an environmental assessment. The opinions of the public, as well as those of professional and amateur scholars, are important in environmental assessment. A discussion of this point was offered in the introduction to these guidelines and a listing of heritage and community groups that should be contacted in the preparation of an environmental assessment has been made in the section on public perceptions below.

The necessary information for **Cultural Landscape** includes the identification and evaluation of any **discrete aggregation of man-made features that has one or more of the following attributes**:

It is the only one of its kind or one of the remaining few;

It is the most outstanding example of its kind;

It is perceived by the moving eye as a built-up area with a particularly interesting and attention-catching series of visions;

It provides the observer with a strong and definite sense of position or place;

It has a unique or typical material content well executed in terms of colour, texture, style, and scale;

It is exemplary of distinctive cultural processes in the historic development and use of land;

It is part of a complex of outstanding scenic/historic areas or is perceived as an ensemble of different landscape categories such as townscape, agricultural landscape, natural landscape, or waterscape; or

It is part of a network of landscape categories as mentioned above, and presents to the moving eye opportunities for special sequential experiences or a series of visions of distinctive scenic views.

The necessary information for **Built Environment** includes the identification and evaluation of any **feature that has one or more of the following attributes**:

Historical Associations

It is associated with a well-known event;

It is associated with a well-known person or group;

It is associated with the first or formative aspect of activity;

It is associated with activity or endeavour of relative antiquity;

It is associated with activity of substantial duration; or

It is associated with an activity or endeavour that affected a substantial population or geographic area.

Architectural or Engineering Qualities

It is a representative work of a well-known surveyor, architect, engineer, master builder, or craftsman;

It has group value, especially as an example of town planning (eg: squares, terraces, or model villages);

It has been well executed within the conventions of a recognized period style or method of construction;

It is a technological innovation or adaptation or represents engineering virtuosity;

It is a good typical example of an early style or construction technique or of an early structure or device commonly used for a specific purpose throughout an area or period;

- It has an unusual or unique style or construction technique;
- It is the first or earliest of a surviving specimen of a type;
- It is the last or latest surviving specimen of a type;
- It is the only example of a particular type or one of the remaining few;
- It is a landmark in a streetscape, townscape, or countryside setting; or
- It contributes to the harmony of its neighbourhood.

The necessary information for **Archaeology** includes the identification and evaluation of **any feature that has one or more of the following attributes:**

- It has the potential through archaeological exploration, survey, or fieldwork to provide answers to substantive questions (ie. relate to particular times and places) about events and processes that occurred in the past and therefore add to our knowledge and appreciation of history;
- It has the potential through archaeological exploration, survey, or fieldwork to contribute to testing the validity of general anthropological principles, especially those relating to the process of long term culture change and ecological adaptation, and therefore to the understanding and appreciation of our man-made heritage; or
- It is probable that various technical, methodological, and theoretical advances are likely to occur during archaeological investigations of a feature, alone or in association with other features, and therefore contribute to the development of better scientific means of understanding and appreciating our man-made heritage.

The necessary information for **Public Perceptions** includes the identification and evaluation of the **stated opinions or views of knowledgeable public groups and organizations concerning the historical, architectural, archaeological, aesthetic, and scenic qualities of the environment to be affected by the undertaking and alternatives.** It is suggested that the following be contacted in this regard:

- The Ontario Historical Society;
- The Ontario Archaeological Society;
- The Architectural Conservancy of Ontario;
- The Local Architectural Conservation Advisory Committee;
- The local historical, archaeological, or amenity societies;
- The local Indian Band council(s); or
- The local ethnic cultural organization(s).

Each and every group suggested here need not be consulted for every "Specific" (or individual) environmental assessment.

The process of making descriptions of man-made heritage for environmental assessments should begin, as discussed above, with consultation with the Ministry of Culture and Recreation on the available information. If there is no directly relevant information currently available from existing government or private sources, or if such information is seriously deficient, then it will be suggested to the proponent that he provide for, to some specified extent, original documentary or fieldwork research to develop the required information for environmental assessment.

The documentary component of research can involve the development of a body of data about the study area through the analysis of printed sources, manuscripts, records, and documents, as well as other material such as photo-

graphs, maps, and tape recordings. This work is usually done in archives, libraries, and similar institutions. Also included here could be the examination of communications or other documentation on public perceptions solicited by the proponent from the organizations and groups listed above. To assist in this latter data-gathering process, it would be helpful for the proponent to circulate a questionnaire that clearly indicates the nature, purpose, and rationale for the proposed undertaking, and asks the respondent to identify those landmarks or special places of historic, scenic, or aesthetic interest in the affected area that he or she considers important in the lifeways, beliefs, or institutions of his or her organization or group. Questionnaires certainly do not have to be exclusively concerned with man-made heritage and are probably best utilized as part of a comprehensive public participation programme in the preparation of an environmental assessment. Moreover, there are other methods of determining public perceptions of man-made heritage such as sending individual letters specifically tailored to solicit the views of a particular group or organization; examining policy statements concerning specific heritage sites or heritage conservation in general in the promotional literature of organizations or groups; and observing the visible evidence in cultural properties that have been commemorated through public or private initiative by way of physical conservation or other development of a site, plaques or cairns on a site, signs on route to a site, or other means. These methods are by no means definitive or mutually exclusive.

The fieldwork component of research can involve one or more of the following:

cultural landscape analysis;

built environment survey; or

archaeological survey.

Cultural landscape analysis and built environment survey may often be incorporated as part of a proponent's already well-established fieldwork investigations of an area to be affected by a proposed project. Archaeology normally requires special provisions.

Cultural landscape analysis and built environment survey should begin with the examination of documentary data, maps, and aerial photographs, along with interviews with local people. This helps to pin-point the location of significant prospects of scenery and important visible features. Field recording is normally undertaken through sketch elevations and plans, photographs, detailed drawings of key elements, and maps.

Archaeological survey necessitates a thorough study of documentary information. It entails close collaboration with local people. The fieldwork programme itself must be adequately planned, funded, and staffed, and it should be attuned to the identification of both prehistoric and historic features. Without carrying out the examination of every square metre within the area to be affected by the undertaking and alternatives, the field programme should attempt to be both systematic and comprehensive. Fieldwork normally involves strategic walking of the terrain complemented by study of relevant maps and aerial photographs. More importantly, it involves soil sampling, surface collection, and test excavation. Some form of detailed examination is the only certain way to confirm the existence and meaning of early remains about which the documents are silent or non-existent. Since excavation involves the removal of evidence from its interpretative context, the skill and care with which the job is done are of primary importance. The process is both labour intensive and time consuming. For this reason it is preferable that disturbance of archaeological resources be kept to an absolute minimum. Archaeological exploration, survey, or fieldwork requires a licence under section 48 of *The Ontario Heritage Act, 1974*.

For a "Class" undertaking, the environmental assessment should specify the categories of necessary information discussed above as part of whatever reports are required for each individual project within the class of activity. It should also indicate the means through which such information will be provided.

3.4

Format for the Documentation and Presentation of Information

In order that the readers and reviewers of the man-made heritage component of “Specific” (or individual) environmental assessments can understand what has been found and what the basis for evaluations are, it is crucial that a logical and consistent format or system for the documentation and presentation of the necessary information be specified. Figure 2 is a man-made heritage record form developed by the Ministry of Culture and Recreation for environmental assessments. Record forms should normally be included in the environmental assessment document as an appendix.

For a “Class” undertaking, the environmental assessment should specify the need for consistent documentation and presentation of the necessary information in whatever reports are required for each individual project within the class of activity.

4.

DESCRIPTION OF EFFECTS ON MAN-MADE HERITAGE

The description of effects that **will be caused** or that might **reasonably be expected to be caused** by a “Specific” (or individual) undertaking and alternatives on the environment should consider the **level of effects** on man-made heritage as part of the environment, in the following terms:

- short or long duration;
- site specific or widespread;
- high or low physical impact; and
- reversible or irreversible.

Moreover, these factors should be identified and evaluated for **each** of the following phases of the undertaking and alternatives where relevant:

- pre-construction;
- construction;
- operation and maintenance; and
- reclamation and abandonment.

The effects of an undertaking and alternatives on man-made heritage in the environment may be either **beneficial** or **adverse**, and both should be identified and evaluated.

Beneficial effect on man-made heritage may be defined as one or more of the following conditions:

- protection** of a cultural property from willful destruction by man;
- retention** of a cultural property entirely as is and further deterioration arrested and structural stability provided, but without further significant change;
- accurate restoration** of the form and details of a cultural property with missing or worn-out parts replaced by copies made of identical materials and executed in the same fashion as the original work;
- repair and sympathetic alteration** of a cultural property to permit continued use for a current purpose or the accommodation of a new use, with modern materials and building methods employed;
- enhancement** of a cultural property by the addition of harmonious new development; or

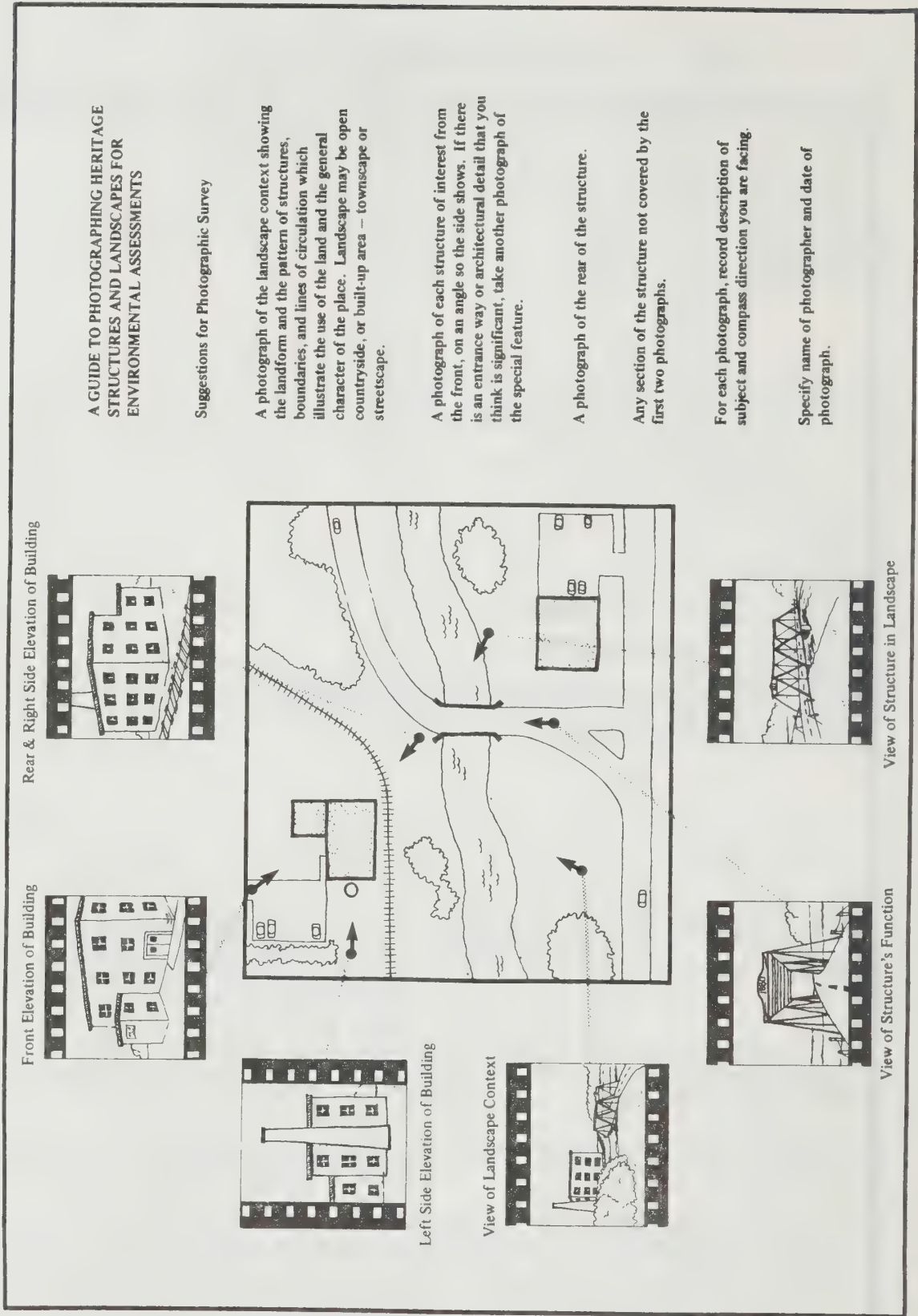
FIGURE 2.

*A MAN-MADE HERITAGE RECORD FORM
FOR ENVIRONMENTAL ASSESSMENTS*

NAME:			REFERENCE NO:	
NATURE OF FEATURE: (Cultural Landscape, Building, Archaeological Site, Etc.)			DATE OF REPORT:	
LOCATION:	LOT	CON	MAP:	
	TOWNSHIP			
	COUNTY/R.M.			
	1:50,000 MAP REF.			
	MILITARY GRID REF.			
	AIR PHOTO REF.			
DATING:				
ORIGINAL USE:				
CURRENT USE:				
OWNERSHIP:				
DESCRIPTION: (Attributes of Cultural Landscape, Built Environment, Archaeology and Public Perceptions)				
PRINTED, MANUSCRIPT OR PHOTOGRAPHIC RECORDS:			REPORTER'S NAME AND ADDRESS:	
PHOTOS (35mm contact print)				
SKETCHES AND NOTES ON REVERSE SIDE:				

FIGURE 3.

A GUIDE TO PHOTOGRAPHING HERITAGE
STRUCTURES AND LANDSCAPES FOR
ENVIRONMENTAL ASSESSMENTS



maintenance of a cultural property through regular replacement of worn-out non-structural elements and services, using where possible materials sympathetic to the original work in the structure or feature.

Adverse effect on man-made heritage may be defined as one or more of the following conditions:

destruction or unsympathetic alteration of all or part of a cultural property;

isolation of a cultural property from its surrounding environment; or

introduction of physical, visual, audible, or atmospheric elements that are **not in character** with a cultural property and its setting.

It is important in describing expected effects on man-made heritage, both beneficial and adverse, to describe how each effect may be perceived and appreciated by those groups or organizations who may have expressed an interest in the affected cultural property.

For a “Class” environmental assessment, recognizing that the effects will vary in type and magnitude depending on the situation, typical examples should be given for probable effects to the extent practicable on a generalized basis. Of particular importance for a “Class” environmental assessment is the description of the anticipated cumulative effects of the class of activity on man-made heritage throughout the whole or any part of Ontario over a long period of time. Finally, the “Class” environmental assessment should also discuss under what circumstances adverse effects on man-made heritage would be greater than expected norms and which would therefore constitute grounds for a “Specific” (or individual) environmental assessment being required for the project.

5.

DESCRIPTION OF ACTIONS TO PREVENT, CHANGE, MITIGATE, OR REMEDY ADVERSE EFFECTS ON MAN-MADE HERITAGE

The description of actions necessary to prevent, change, mitigate, or remedy adverse effects on man-made heritage in the environment should specify not only the mitigative measures themselves, but also the procedures required to monitor the predicted effects and prescribed mitigation measures during each phase of the undertaking. Mitigation measures may themselves have adverse effects, which should also be identified.

Mitigation measures and monitoring procedures must obviously be tailored to the nature and scope of each “Specific” (or individual) undertaking. It is important, however, that in every case the following be discussed:

who is responsible?

what cultural property is involved, and where is it?

what is to be done, when, and for how long?; and

what resources will be required to undertake the necessary actions?

Moreover, the following principles should be kept in mind when describing actions necessary to prevent, change, mitigate, or remedy adverse effects on man-made heritage:

Known archaeological sites, or areas where such sites might reasonably be expected to exist, should be avoided and preserved;

Existing elements of the built environment should be retained and used wherever economically feasible and consistent with public health and safety;

The design and alignment of new roadways and service corridors should be in harmony with the surrounding area;

Division of land should be in harmony with the orientation and division of lots characteristic of the existing pattern in the surrounding area;

In built-up areas, new buildings developed as infill or for expansion should be in harmony with existing buildings in general mass, height, and setback, and in the treatment of architectural details, especially on building facades;

In the countryside, new buildings should be in harmony with the character of the surrounding landscape in terms of siting, scale, and materials;

Where development replaces a former use, that development should express the former use in some way. This may include one or more of the following:

preserve and display fragments of former built features and landscaping;

mark the traces of former locations, shapes, and circulation lines;

display graphic and verbal description of former occupation; or

reflect former architecture and plan in the new development; and

Where an undertaking will unavoidably destroy or significantly alter cultural property, actions should be taken to salvage information on the feature to be lost. Such actions could include, for example archaeological exploration or excavation, and the recording of buildings or structures through measured drawings or photogrammetry.

A “Class” environmental assessment should describe the fundamental principles upon which mitigation measures concerning man-made heritage will be based as well as a method for decision making with respect to the identification and evaluation of the need for actions to prevent, change, mitigate, or remedy the adverse effects of particular projects within the class. Examples of the type of mitigative measures appropriate to projects within the class should also be given. Finally, the “Class” environmental assessment document should describe general procedures for monitoring man-made heritage concerns for the class activity as a whole, and indicate how reports required for each individual project within the class will contain a description of specific monitoring procedures.

6.

EVALUATING ADVANTAGES AND DISADVANTAGES TO MAN-MADE HERITAGE

In the evaluation of the advantages and disadvantages of a “Specific” (or individual) undertaking and alternatives to the environment, an explanation should be made of how man-made heritage resources, as identified and evaluated as part of the environment, were ranked among other factors in deciding upon the desirability of the proposed change in the environment, and why any trade-offs involving either the destruction or the retention or the improvement of cultural property were considered necessary or appropriate. Moreover, it is particularly important in this evaluation that important conclusions, summary data, judgments, and recommendations be referenced to the appropriate background papers and record forms so that reviewers may independently investigate and evaluate the adequacy and validity of the non-technical presentation of the environmental assessment.

For a “Class” undertaking, the method through which man-made heritage will be considered in carrying out the evaluation of alternatives and selecting the undertaking should be specified in the environmental assessment.



Ministry of Historical
Culture and Planning and
Recreation Research Branch

Hon. Reuben C. Baetz
Minister
Dr. Douglas Wright
Deputy Minister

